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Response
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12-15-02
PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Alexander P. Moravsky, et al.

Examiner: P. Macchiarolo

Serial No: 09/784,910

Art Unit: 2875

Filed: February 16, 2001

Docket: 14310(FIC-1775-CO)

For: DIAMOND/CARBON NANOTUBES
STRUCTURES FOR EFFICIENT
ELECTRON FIELD EMISSION

Dated: December 4, 2002

Assistant Commissioner for Patents
Washington, D.C. 20231

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RESPONSE PURSUANT TO 37 C.F.R. §§1.111 AND 1.143

Sir:

In response to the Office Action dated September 27, 2002, and in accordance with the provisions of 37 C.F.R. §§1.111 and 1.143, applicants provisionally elect, with traverse, the subject matter of Group II, i.e., Claims 46-49, for continued prosecution herein.

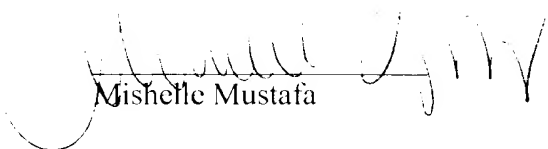
REMARKS

Claims 1-49 are pending in the above-identified application and have been subjected to restriction by the Office Action under 35 U.S.C. §121 and 37 C.F.R. §1.499 as follows:

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner of Patents and Trademarks, Washington, D.C. 20231 on December 4, 2002.

Dated: December 4, 2002


Michelle Mustafa

I. Claims 1-45, drawn to a method of enhancing the electron field emission from an electron field emitter, classified in class 313, subclass 311

II. Claims 46-49, drawn to a method of manufacturing an electron field emitter, classified in class 445, subclass 46.

In support of the present Restriction Requirement, the Office Action has alleged that Groups I and II are related as process of making and the product made therefrom.

As indicated hereinabove and in order to be fully responsive to the requirement for restriction imposed by the Office Action, applicants provisionally elect, with traverse, to prosecute the subject matter of Group II, i.e., Claims 46-49.

In addition, applicants reserve the right to file a divisional application directed to the non-elected subject matter.

Notwithstanding the foregoing, applicants hereby traverse, pursuant to 37 C.F.R. §§1.111 and 1.143, the requirement for a restriction and request reconsideration thereof in view of the following remarks.

Applicants respectfully request that the Restriction Requirement be withdrawn since it is not in compliance with 35 U.S.C. §121 and 37 C.F.R. §§1.141 and 1.142 and 1.499.

35 U.S.C. §121 provides that the Commissioner may restrict an application when two or more independent and distinct inventions are claimed in a single application (emphasis added). Similarly, 37 C.F.R. §1.141(a) permits restriction on condition that independent and distinct inventions are found within one application. Only the statutory requirement that the various groups of claims are "distinct" has been proffered as a basis for requiring the restriction. Even assuming, pro arguendo, that the Office Action was correct with respect to distinctiveness, there is absolutely no indication in the Office Action that

Groups I-II are also independent. In fact, applicants submit that there is an interdependence between each of the groups alleged to be patentably distinct.

MPEP §802.01 defines independent as follows:

The term "independent" (i.e., not dependent) means that there is no disclosed relationship between the two or more subjects disclosed, that is they are unconnected in design, operation or effect...

Applicants respectfully submit that the subject matter in Groups I and II are connected in design, operation or effect and are thus not dependent.

The subject matter of Group I is inter alia, directed to a nanotubes having a substantially uniform coating of diamond or diamond like carbon, a field emission cathode comprised of a substrate and of said nanotubes coating the substrate, a method of enhancing the electron field emission having a cathode comprised of said nanotubes and a method for retarding the evaporation of carbon from electron field emitter containing a cathode in which the cathode is comprised of said carbon nanotubes, while Group II is directed to a method of forming said field emission cathode referred to in Group I. Thus, Groups I and II are related and are not independent. They therefore have a disclosed relationship. Consequently, because the Office Action has not even alleged the statutory required "independence" of these groups and further because these groups of claims are connected in design, operation and/or effect and are therefore not independent, the claims which the Office Action has grouped separately are not "independent and distinct" so as to justify the Restriction Requirement. It is therefore respectfully submitted that the Restriction Requirement is improper and cannot be maintained.

Moreover, the subject matter of the two groups are linked to form a single general inventive concept, and thus a restriction requirement in this case is improper. This application is claiming priority of an international application, and as such pursuant to 37 C.F.R. §1.499, the Examiner can not issue a restriction requirement if the claimed subject matter has unity of the invention. In the present case, there is unity of invention between Groups I and II. More specifically, the subject matter of Groups I and II relate to embodiments wherein a nanotube has a substantially uniform coating of diamond or diamond-like carbon thereon. Consequently, inasmuch as there is a unity of invention, it is respectfully requested that the restriction requirement be withdrawn.

In addition, the courts have recognized that it is in the public interest to permit applicants to claim several aspects of their invention together in one application, as the applicants have done herein, so as to encourage applicants to provide a more detailed disclosure of all aspects of their invention. The CCPA has observed:

We believe the constitutional purpose of the patent system is promoted by encouraging applicants to claim, and therefore to describe in the manner recognized by 35 U.S.C. §112, all aspects as to what they regard as their invention, regardless of the number of statutory classes involved.

In re Kuehl, 456 F2d 658, 666, 117 U.S.P.Q. 250, 256 (CCPA 1973).

Applicants respectfully suggest that in view of the continued increase of official fees and the potential limitation of applicants' financial resources, a practice which arbitrarily imposes a Restriction Requirement may become prohibitive and thereby contravenes the constitutional intent to promote and encourage the progress of science and the useful arts. Moreover, under the regulatory changes as a consequence of the General

Agreement on Trade and Tariffs (GATT), the applicants are required to either conduct simultaneous prosecution with attendant filing fees and costs or face a compromise of the term of their patent assets.

It is vital is filed to all applicants that Restriction Requirements issue only with the proper statutory authorization, because patents issuing on divisional applications which are filed to prosecute claims that the Examiner held to be independent and distinct can be vulnerable to legal challenges alleging double-patenting. The third sentence of U.S.C. §121, which states that a patent issuing on a parent application “shall not be used as a reference” against a divisional application or a patent issued thereon, does not provide comfort against such allegations. The Court of Appeals for the Federal Circuit has declined to hold that §121 protects a patentee from an allegation of same-invention-double-patenting, Studiengesellschaft Kohle mbH v. Northern Petrochemical Co., 784 F.2d 351, 355, 288 U.S.P.Q. 837, 840 (Fed. Cir. 1986); and in Gerber Garment Technology Inc. v. Lectra Systems Inc., 916 F.2d 683, 16 U.S.P.Q. 2d 1436 (Fed. Cir. 1990), that court held that §121 does not insulate a patentee from an allegation of “obviousness-type” double patenting, and in fact affirmed the invalidation on double patenting grounds of a patent that had issued from a divisional application filed following a restriction requirement. Furthermore, it is far from clear that the step of filing a terminal disclaimer is available to resolve a double patenting issue that arises after the issuance of a patent on the divisional application.

All these considerations indicate that the imposition of a restriction requirement with inadequate authority can lead to situations in which applicant’s legitimate patent rights are exposed to uncertainty and even extinguished. Accordingly, to protect patentee’s rights and to serve the public’s interest in the legitimacy of issued patents,

applicant respectfully urges the Examiner not to require restriction in cases such as the present application.

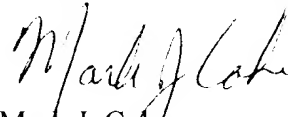
The Office Action also seems to suggest that a prior art search requiring search in more than one classification is sufficient criteria for maintaining a restriction to allegedly different patentable inventions. This, of course is error. It simply does not comply with the provisions under 35 U.S.C. §121. (See In re Kuehl, supra).

The classification system is an unreliable basis for requiring restriction between claims to the various aspects of applicants' unitary invention, because the system exhibits considerable overlap in technical definitions. In particular, the definitions of subclasses in the classification system do not prevent an Examiner from basing patentability decisions, as to claims he assigned to one group, on patent references found in the subclass(es) with which he associated another group of claims.

Furthermore, the classification system is a poor basis for requiring restriction between related aspects of an invention because classifications and definitions change over time. Thus, a classification that might have seemed to support restriction at a given time could change, thereby casting a shadow over the propriety of the restriction requirement later on during the term of the patents issuing from parent and divisional applications. Indeed, classifications seem largely to change in response to considerations of administrative convenience, and often in response to nothing more than growth in the number of patents in a given class or subclass. These considerations have nothing to do with whether the subject matter of patents assigned to different classifications is "independent and distinct" as those terms are used in 35 U.S.C. §121, which fact proves that basing restriction requirements on the classification system is improper.

Hence, it is respectfully requested that the United States Patent and Trademark Office reconsider and withdraw the requirement for restriction pursuant to 35 U.S.C. §121 and provide an action on the merits with respect to all of the claimed subject matter.

Respectfully submitted,



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